

CLAIM LISTING

1-33. (Cancelled)

34. (Currently Amended) A method for optimizing power consumption in a communication system comprising a network interface and a host computer, the method comprising:

determining, by the network interface, at least one power mode of the host computer from a plurality of possible power modes; and

selecting, by the network interface, at least one network interface power management state from a plurality of possible power management states based on the at least one power mode determined, wherein selecting further comprises:

configuring a PHY layer to restart and negotiate at a predetermined speed; and

increment advertized capabilities until link presence is detected; and

wherein the network interface is operably coupled to the host computer and provides access for the host computer to the network, and wherein the network interface:

locally detects a non-zero volume of traffic received by said network interface; and

locally selects the power management state for the network interface from the plurality of possible power management states based at least in part on the volume of non-zero traffic received by said network interface.

35. (Cancelled)

36. (Currently Amended) The method of claim [35] 34 wherein said plurality of possible power management states comprises at least one of a first, second and third power management states.

37. (Currently Amended) The method of claim [35] 34 wherein locally selecting comprises operating the communication device at a frequency supporting high bandwidth transmission.

38. (Previously Presented) The method of claim 37 wherein locally selecting comprises operating at least a portion of the communication device at 62.5 MHz.

39. (Currently Amended) The method of claim [35] 34, wherein locally selecting further comprises reducing a throughput of the communication device.

40. (Previously Presented) The method of claim 39 wherein locally selecting comprises reducing the throughput of the communication device from about 1000 Base-T to about 10 Base-T.

41. (Currently Amended) The method of claim [35] 34 wherein locally selecting comprises switching to a slow clock during at least one power management state.

42. (Previously Presented) The method of claim 41 wherein locally selecting comprises switching to a 6.25 MHz clock.

43. (Currently Amended) The method of claim [35] 34, wherein locally detecting by the network interface operably coupled to the host computer to provide access to the network, further comprise detecting whether the host computer is using battery or AC power and wherein selecting the power state further comprises selecting the power state at least in part on the detection of whether the host computer is using battery or AC power.

44. (Cancelled)

45. (Currently Amended) The method of claim [35] 34, wherein locally detecting by the network interface operably coupled to the host computer, further comprises detecting absence of traffic on the link, and use of a battery by the host computer; and wherein selecting at state wherein the PHY layer uses polling.

46. (Currently Amended) The method of claim [35] 34, wherein the locally detecting by the network interface operably coupled to the host computer, further comprises loss of signal on link and wherein selecting by the network interface further comprises:

switching a clock speed from a MAC layer to the PHY layer.

47-48. (Cancelled)

49. (Currently Amended) A system for optimizing power consumption in a communication system comprising a network interface and a host computer, the system comprising:

network interface for determining at least one power mode of the host computer from a plurality of possible power modes and selecting at least one network interface power management state from a plurality of possible power management states based on the at least one power mode determined, wherein selecting further comprises:

configuring a PHY layer to restart and negotiate at a predetermined speed; and

increment advertized capabilities until link presence is detected; and

wherein the network interface is operably coupled to the host computer and provides access for the host computer to the network, and wherein the network interface locally detects a volume of non-zero traffic received by said network interface and locally selects the power management state for the network interface device from the plurality of possible power management states based at least in part on the volume of non-zero traffic received by said network interface.

50. (Cancelled)

51. (Currently Amended) The system of claim [50] 49 wherein said plurality of possible power management states comprises at lease one of a first, second and third power management states.

52. (Currently Amended) The system of claim [50] 49 wherein locally selecting comprises operating the communication device at a frequency supporting high bandwidth transmission.

53. (Previously Presented) The system of claim 52 wherein locally selecting comprises operating at least a portion of the communication device at 62.5 mHz.

54. (Currently Amended) The system of claim [50] 49, wherein locally selecting further comprises reducing a throughput of the communication device.

55. (Previously Presented) The system of claim 54 wherein locally selecting comprises reducing the throughput of the communication device from about 1000 Base-T to about 10 Base-T.

56. (Currently Amended) The system of claim [50] 49 wherein locally selecting comprises switching to a slow clock during at least one power management state.

57. (Previously Presented) The system of claim 56 wherein locally selecting comprises switching to a 6.25 mHz clock.

58. (Currently Amended) The system of claim [50] 49, wherein locally detecting further comprise detecting whether the host computer is using battery or AC power and wherein selecting the power state further comprises selecting the power state at least in part on the detection of whether the host computer is using battery or AC power.

59. (Currently Amended) The system of claim [50] 49, wherein locally detecting by the network interface operably coupled to the host computer, further comprises detecting absence of traffic on the link, and use of a battery by the host computer; and wherein selecting at state wherein the PHY layer uses polling.

60. (Currently Amended) The system of claim [50] 49, wherein locally detecting by the network interface operably coupled to the host computer, further comprises loss of signal on link and wherein selecting by the network interface further comprises:

switching a clock speed from a MAC layer to the PHY later.